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THE
AMERICAN
SOCIETY
OF HUMAN
GENETICS

Stakeholders

- Genetic Specialists
- Physicians
- Non-physician Health Care Providers
- Public Higher Education
- General Public

Educational Programs

Level	Type of Program	Organization
Gen'l education	Schools, pub programs	
Undergraduate	Genetics courses Pre-med requirements	ASHG AAMC
Physicians	Med School curriculum Post-grad programs CME	AAMC ACGME, RRC, ABMS ABMS, ACMG
Geneticists	MD and PhD Counselors	ABMG ABGC
Health Professions		

Genetics Training for Physicians

Level	Organization	Activity
Med school curriculum	AAMC APHMG	Accreditation Curriculum contents
USMLE exams	NBME APHMG	Appoint exam writers
Residencies	ACGME, RRC	Residency curriculum Accreditation
Continuing Medical Education	ABMS ACMG	MOC, Guidelines Programming

Genetics Specialists

- American Board of Medical Genetics

Currently 2980 certificates to 2338 individuals

93-96 down 21%

96-99 down 32%

99-03 down 16%

Clinical Geneticists = 1075

Residencies of 175 slots, only 95 filled

- American Board of Genetic Counselors

Genetics in Residencies

- ACGME and RRC approval of curriculum
- ABMS specialty board programs

Pediatrics

Obstetrics & Gynecology

Internal Medicine Neurology

Family Practice

- Formal combined residency programs

– Approved

Pending

ABMG/ABPediatrics

ABMG/ABPN

ABMG/ABIM

ABMG/ABOG

ABMG/ABPath

ABMG/ABFP

Continuing Medical Education

- Maintenance of Certification

 - Time limited certificates

 - Demonstration of competence

- Board specific

- Utilize & integrate guidelines (ACMG)

 - Rather than use curricular materials

- COMMOC of ABMS

 - Committee on Management of MOC

Teaching Models

- Curriculum guidelines and elements
APHMG, NCHPEG
- Professional guidelines
ASHG, ACMG
- Programming for specialties
ACMG
- Faculty development
GPC model program

Undergraduate courses

- ASHG Information & Education Committee
 - Survey of courses
 - Biology courses inadequate
 - Provided conceptual material
- Premed requirements
 - Genetics rated 3rd most important subject
 - Not a medical school requirement

Educating/Informing the Public

- Patient & consumer education
- General public
 - “genetics readiness”

Patients & Consumers

- Informational materials

 - At time of service

 - From organizations

- Websites

 - Organization websites such as Genetic Alliance

 - GeneTests

 - National Library of Medicine (GHR)

General Public

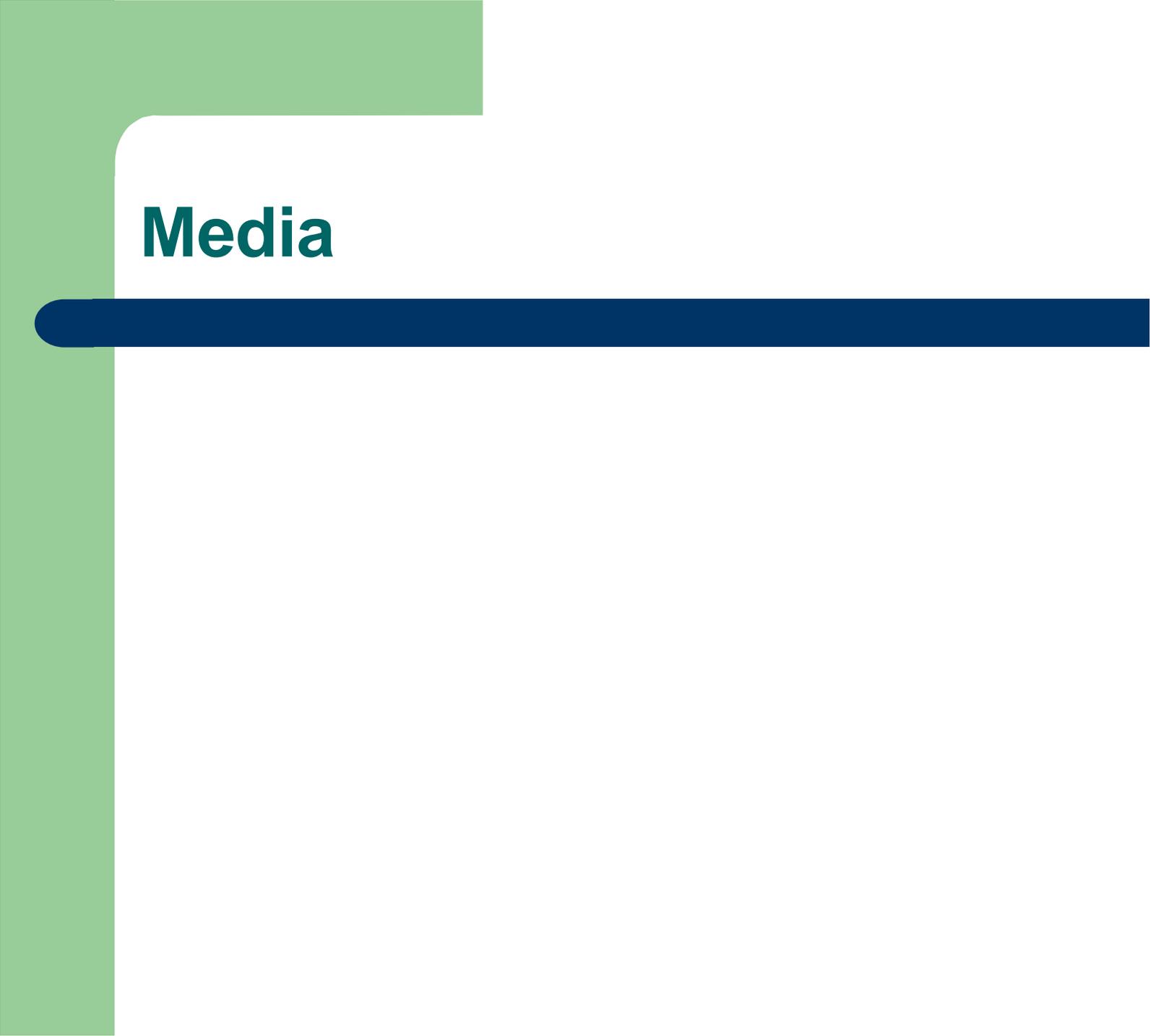
- Teacher training
 - NABT
 - NSTA
- Materials (examples)
 - NHGRI
 - NCHPEG

ASHG/NHGRI Mentor Network

- >700 volunteers
 - Classrooms
 - Museums
 - Projects and Individuals
- Materials development
- Plans for evaluation

www.ashg.org

www.genome.gov



Media

Barriers

- Perceived lack of necessity or relevance
- Focus on rare disorders
- Overcrowded curricula
- Complex (probabalistic) material

Gaps

- Concepts in college
- Declining specialist pool
- Insufficient training faculty
- Genetics and common disorders
- Information gaps for non-specialists

Needs

- Change perception
 - Develop applications examples
 - Incorporate in practice during training
 - Facilitate interactions with
consumer/advocacy groups

Needs

- Shift focus
 - Rare disorders
 - Interventions
 - Carrier and risk assessments
 - Emphasize common, complex disorders
 - Incorporate pharmacogenetics

Needs, continued

- Overcrowded curricula
 - Develop and disseminate models
 - Incorporate into problem-based learning
 - Train standardized patients
 - Develop on-line modules

Needs, continued

- Complex material
 - Develop teaching materials
 - Encourage innovation and tools
 - Support professional guidelines

Needs, continued

- Enhance workforce
 - Increase # of genetic specialists
 - Support training programs
 - Fund residencies
 - Expand current teaching models
 - GPC and NCHPEG

Needs, continued

- Better informed workforce
 - On-line training
 - Conferences
 - Dissemination of information

Needs, continued

- Increase general awareness and knowledge
 - Support professional outreach programs
 - Support lay programs
 - Respond to media opportunities